

HSCA1EOCGEOMETRY

1. One endpoint of a line segment is at $(1, 2)$.
The midpoint of the line segment is at $(5, 8)$.
Determine the coordinate of the other endpoint.

A) $(-4, -6)$ B) $(3.5, 5)$
C) $(6, 10)$ D) $(9, 14)$

2. Given the points $A(4, 6)$ and $B(8, -2)$, what is the length of \overline{AB} ?

A) $\sqrt{5}$ B) $2\sqrt{5}$ C) $4\sqrt{5}$ D) $4\sqrt{13}$

3. Determine the coordinates of the midpoint of the line segment with endpoints $C(-4, 6)$ and $D(-4, -3)$.

A) $(-4, 1)$ B) $(-4, 1.5)$
C) $(-4, 2)$ D) $(4, 1.5)$

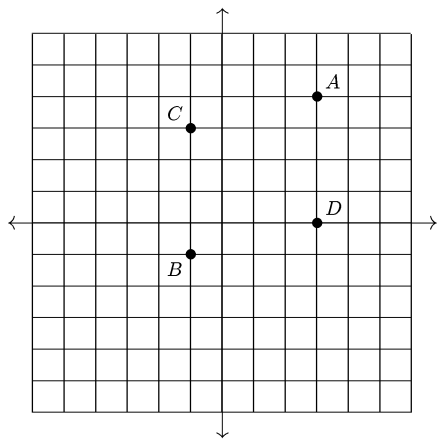
4. Which of the following statements best describes a plane in Euclidean geometry?

A) A plane is modeled by a sphere. Where lines are great circles such as the equator or the meridians on a globe.
B) A plane is modeled by a football-shaped surface.
C) A plane is modeled by a flat surface such as a table top.
D) A plane is modeled by a surface in the shape of an hour-glass.

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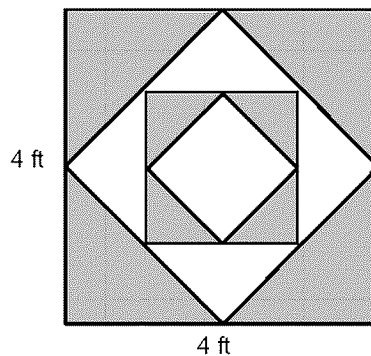
5. What is the main principle that separates Euclidean geometry from other non-Euclidean geometries?
- A) Given a line segment, a circle can be drawn using the segment as the radius and one endpoint as the center.
 - B) Distance cannot be measured in non-Euclidean geometry.
 - C) Given any line and a point which is not on it, a line can be drawn through the point which is parallel to the given line.
 - D) A straight line can be drawn by joining any two points.

6. With the given graph, determine which line contains point C .



- A) $y = x - 1$
- B) $y = -3x$
- C) $y = 2x + 1$
- D) $y = x - 3$

7. Kioshi is creating a game for a charity event. The game board is shown. The midpoints of the sides of the outer square are the vertices of the inner squares.



What is the total area of the shaded region?

- A) 6 square feet
- B) 8 square feet
- C) 10 square feet
- D) 12 square feet

1.
Answer: D
CodePath: EAS.THM.G.7.C.5
2.
Answer: C
CodePath: EAS.THM.G.7.C.43
3.
Answer: B
CodePath: EAS.THM.G.7.C.3
4.
Answer: C
CodePath: EAS.THM.G.1.B.4
5.
Answer: C
CodePath: EAS.THM.G.1.C.3
6.
Answer: B
CodePath: EAS.THM.G.7.A.5
7.
Answer: C
CodePath: EAS.THM.G.4.9